

Work Order ID 81339

\*81339\*

Page 1

March-13-12 1:33:02 PM

Item ID: D407-649-011

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Hardpoint (6)

Start Date: 13/03/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 27/03/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/03/13 Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

N/A

Rev N/A

100

0.00

\*100\*

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file D407-649 and type labels per QSI 014

CHG001

110

Pick Kit

0.00

\*110\*

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

\*120\*

QC

Memo

0.00

Quality Control

*S. Schulz*  
*JB*

*J. G. MLJ 12-4-23*

*1 12/04/2013*  
*JB*

*S. Schulz*

*C. A.*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 81339

\*81339\*

Page 2

March-13-12 1:33:02 PM

Item ID: D407-649-011

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Hardpoint (6)

Start Date: 13/03/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 27/03/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
*130*									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D407-649-011 Location: <u>120</u> PPP Rev: <u>C</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
*140*									
QC	Memo	0.00							
Quality Control									

12/4/25

11/20/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March-13-12 1:33:06 PM

Page 1

Work Order ID: 81339

\*81339\*

Parent Item: D407-649-011

\*D407-649-011\*

Parent Item Name: Hardpoint (6)

Start Date: 13/03/2012

Required Date: 27/03/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B98.12.07Changed location for step 2DM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
80-007-15-4A Insert		Purchased	No			120	Each	31.0000	24	24	✓		
<div>*80-007-15-4A*</div>													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST379				31					
					120224			31		120224			
AN4-6A Bolt		Purchased	No			120	Each	1,745.000	24	24	✓		
<div>*AN4-6A*</div>													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST356				1745					
					119017			1745		119017			
AN960JD416 Washer	NAS1149D0463J	Purchased	No			120	Each	14.0000	24	24	✓		
<div>*AN960JD416*</div>													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST351				14					
					116289			14					
D2713 Lug		Manufactured	No			120	Each	6.0000	4	4	✓		
<div>*D2713*</div>													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				Mezz				6					
					36699			6		36699			

JB

JB

119017  
121255 JB

JB 12/04/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March-13-12 1:33:06 PM

Page 2

Work Order ID: 81339

\*81339\*

Parent Item: D407-649-011

\*D407-649-011\*

Parent Item Name: Hardpoint (6)

Start Date: 13/03/2012

Required Date: 27/03/2012

Start Qty: 1.00

Required Qty: 1.00

D2755-1

Manufactured No

120 Each

3.0000

1

\*D2755-1\*

Lug

\*\*

Location

Loc Qty

Loc Code

ST487

3

17551

3

120 Each

14.0000

1

\*\*

D2755-2

Manufactured No

\*D2755-2\*

Lug

Location

Loc Qty

Loc Code

ST487

14

17552

4

48383

10

120 Each

11.0000

6

6

\*\*

D2756

Manufactured No

\*D2756\*

Inner Doubler

Location

Loc Qty

Loc Code

ST017

11

77745

11

120 Each

34.0000

6

6

\*\*

D2757

Manufactured No

\*D2757\*

Outer Doubler

Location

Loc Qty

Loc Code

ST017

34

9235

34

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

March-13-12 1:33:06 PM

Page 3

Work Order ID: 81339

\*81339\*

Parent Item: D407-649-011

\*D407-649-011\*

Parent Item Name: Hardpoint (6)

Start Date: 13/03/2012

Required Date: 27/03/2012

Start Qty: 1.00

Required Qty: 1.00

M7885/2-4-1

Purchased

No

120

Each

113.0000

96

96

\*\*

\*M7885/2-4-1\*

Rivet

Location

Loc Qty

Loc Code

ST393

113

110267

113

110267

M7885/3-4-2

Purchased

No

120

Each

472.0000

126

126

\*\*

\*M7885/3-4-2\*

Rivet

Location

Loc Qty

Loc Code

ST393

472

110267

472

110267

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



REFERENCE ONLY

## 6 PARTS LIST

Qty	Part Number	Description
X	D407-649-011	407 HARDPOINT KIT INSTALLATION
4	D2713	BRACKET
1	D2755-1	AFT BRACKET LH
1	D2755-2	AFT BRACKET RH
6	D2756	INNER DOUBLER
6	D2757	OUTER DOUBLER
96	M7885/2	RIVET
126	M7885/3	RIVET
24	AN4-6A	BOLT
24	AN960JD416	WASHER
24	80-007-15-4A	INSERT - DOME HEAD

## 7 HARDPOINT LOAD LIMITS (REFERENCE ONLY)

The maximum limit loads on the Hardpoint Kit are 500 lb vertical load and 280 lb radial horizontal load for each individual hardpoint. The radial horizontal and vertical loads may be applied simultaneously. Any equipment attached to the hardpoints **shall not exceed these loads**.

## 8 CARGO HOOK LIMITATIONS (REFERENCE ONLY)

Loads applied to the Dart Hardpoint Kit Installation will limit the load carrying capacity of the cargo hook according to the following Figure. When the hardpoints are loaded to their maximum capacity, outlined in section 7 of this document, the cargo hook is limited to carrying a maximum load of 1850 lb.

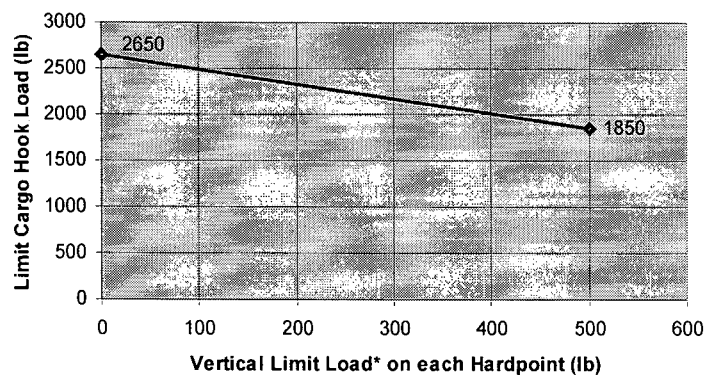


Figure 5 - Cargo Hook Limitations for Hardpoint Loads

\* The Vertical Limit Load on each Hardpoint refers to the maximum allowable vertical limit load for a single hardpoint only. The 500 lb vertical limit load indicated in Figure 5 implies a maximum radial horizontal load of 280 lb, according to section 7 of this document. These limit loads should not be exceeded.



DESIGN <b>KE</b>	DRAWN BY <b>CP</b>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>KE</b>	APPROVED <b>[Signature]</b>	DRAWING NO. DSI 9114	REV. A SHEET 1 OF 1
DATE 98.11.03		TITLE 407 HARDPOINT KIT	SCALE NTS
A	98.11.03	NEW ISSUE	

# **DART SERVICE INSTRUCTION**

AMEND DART INSTALLATION INSTRUCTIONS IIN-D407-649 REV. B

STA: SH98-18  
STC: SR00895NY

REFERENCE ONLY  
**[Signature]**

DETAILS OF THE CHANGES TO THE PARTS LIST ON **PAGE 8** OF  
INSTALLATION INSTRUCTIONS IIN-D407-649 REV. B ARE OUTLINED BELOW:

CHANGE:

96	M7885/2	RIVET
126	M7885/3	RIVET
24	80-007-15-4A	INSERT - DOME HEAD

TO:

96	M7885/2-4-1	RIVET
126	M7885/3-4-2	RIVET
24	80-007-15-4A or SL3149-4A-15 or K100H4A95-15 or FT5215-12A-15 or FIT7623-4A-15	INSERT - DOME HEAD